



**UNIVERSITÀ
DEGLI STUDI
DI UDINE**
hic sunt futura

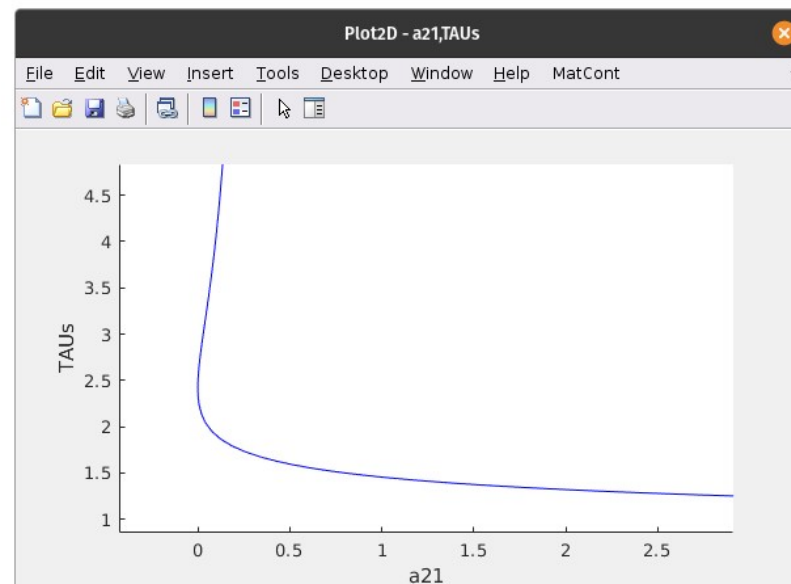
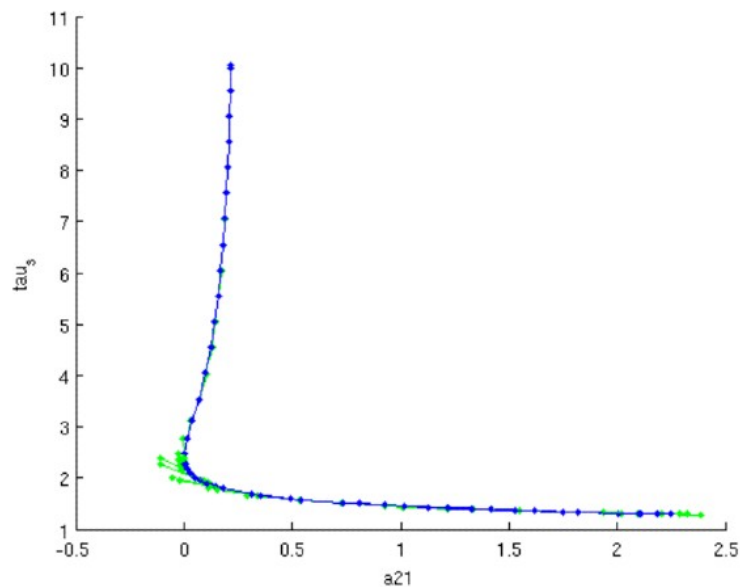
Department of Mathematics, Computer Science and Physics

BSc in Computer Science

Numerical bifurcation analysis of delay equations: A user-friendly extension of MatCont's interface

Prof. Rossana Vermiglio
Davide Liessi

Enrico Santi



Academic year 2021/2022



**UNIVERSITÀ
DEGLI STUDI
DI UDINE**
hic sunt futura

Enrico Santi -

A user-friendly extension
of MatCont's interface

The thesis is related to the internship done at the CDLab of the University of Udine

What has been done

The task carried out during the internship concerned the extension of MatCont to allow users to input and conduct a bifurcation analysis of dynamical systems described by delay equations.

PLACEHOLDER ANIMATED
IMG

Challenges

- Working in a new field where I had no knowledge.
- Understanding how the different components of the software worked together.
- Finding the right regions to accommodate the modifications for the behaviour.

The work done will be presented at the 17th IFAC workshop on TDSs in Montreal, September 2022.